

Project name

Daelim Green Home Plus



Keywords	Low carbon, green growth, eco-friendly, comfort and health, low cost, zero energy
Start of project	2006
End of project	2010 (still in operation)
Contact person or organisation	Daelim construction, Yonsei University
Short project description / project function	The first multi-residential housing model to research long life, low energy, and eco-friendly residence. Green home plus substantially reduces negative environmental impacts and pursues inhabitable housing environment. The building evaluates the performance of integrated green technologies and is anticipated to be a valuable resource for educating the public about the benefits of sustainable architecture.
Water	Gray water management & reuse system treats water generated from domestic activities in the building and reuse it for non-potable water purpose. Storm water management & reuse system - reuse system manages storm water runoff to prevent floods by promoting infiltration into pervious paving and harvesting water runoff for future use.
Energy	Many systems and technologies related to energy generation and reduction of energy consumption were applied - energy saving plants, solar heating system, BIPV system, Building integrated geothermal heat pump + rain water heating system, radiant heating and cooling system, intelligent heating control system, etc.
Biomass	n/a
Project benefits	Daelim green home plus is the first model of low energy and eco-friendly apartment house. Data from

	green home plus will be used to build national strategies for 'Green Growth'. The building is also contributing as educational and promotional showcase model.
Project level	Pilot project
Financial scale	n/a
Environmental conditions	January mean temperature: -2.4°C, August mean temperature: 24.9°C, Latitude: 37.37, Longitude: 126.67
Altitude	n/a
Description of special local conditions	Song island, Incheon-si, Gyeonggi-do, South Korea. Song island is 1 hour drive from Seoul, and 20 minutes from Incheon international airport. The song island is a new city to achieve international and educational purpose. There are high rise office buildings, high rise residencial buildings, domestic and international universities, and big central park.
Context Zero Emission Buildings	Basically, green home plus focusing on achieving zero energy apartment houses. In comparison to a base model, 40%, 60%, 80% and 100% incremental energy reduction units had built and researches have been going on. The 100% unit is the representative model of zero energy building . At this present, this apartment house model is a zero energy building rather than zero emission building